

## REMARKS

Paragraphs [0103] and [0104] of the Substitute Specification and Abstract have been amended to make them consistent with Tables 7-9 and the original International Application.

New claim 31 combines the limitations of claim 30 with the further description found in paragraph [0016] of the specification.

New claim 32 finds corresponding description in paragraph [0069].

New claims 33-35 find corresponding description in paragraph [0065].

"Use claim" 27 has been canceled thereby obviating the rejection thereof under 35 USC 112 as set forth in paragraph 3 of the office action.

Preliminary to addressing the individual prior art rejections, few general comments contrasting the present invention and the prior art may be helpful. Known energy-sensitive resin compositions containing an acid former are generally organic solvent-based and are developed using an alkaline solution. In contrast, the present invention relates to water-based compositions which can be developed with neutral water. One advantage of the present invention, as taught in paragraph [0069], is that the claimed compositions are environmentally friendly because water is the solvent. Further, in the compositions of the present invention the acid former and sensitizer are in the form of particles. The present invention is based in part upon the discovery that an acid former, in solid particulate form (fine powder) and dispersed in aqueous phase in the copresence of a particulate sensitizer, effectively generates acid upon being irradiated with activating energy rays. The present invention provides excellent patterns

with high resolution even though the acid former and sensitizer are in the form of fine powder. See [0073].

None of the references cited by the examiner disclose or suggest a composition possessing all of the above-mentioned features and advantages.

#### The Rejection for anticipation by Ohta et al (Paragraph 5)

The rejection of claims 15-19, 24, 26 and 27 for anticipation by Ohta et al is respectfully traversed because, firstly, Ohta et al neither disclose nor suggest a water-based composition. The compositions of Ohta et al are all organic solvent-based. See column 35, lines 22-27, and column 35, line 28 to column 36, line 8, of Ohta et al. The examiner's explanation is silent as to where Ohta et al might teach or suggest water as a component of their photosensitive compositions.

Further, the surfactants, disclosed at column 34, lines 47-62 of Ohta et al and characterized as "water-soluble polymers" by the examiner, are not convertible into insoluble form by reaction with the insolubilizing agent as required by the pending claims.

#### The Rejection of Claim 15 for Anticipation by Kawamura (Paragraph 6)

Likewise, Kawamura neither discloses nor suggests any water-based energy-sensitive composition. The compositions of Kawamura are polymer (binder) systems having, dispersed therein in particulate form, a metal oxide encapsulating "an organic photo-heat conversion compound" (column 3, lines 18-27).

The "organic photo-heat conversion compound" functions to convert a polymer

from hydrophobic to hydrophilic (column 3, lines 18-27). The printing plate of Kawamura requires no development step (column 2, lines 43-46 and column 43, lines 29-33).

While the examiner asserts that Kawamura teaches a composition containing a water-soluble binder, the applicants consider that to be incorrect. The binder used in Kawamura is water-insoluble and becomes water-soluble only after acted upon by heat or acid. In contrast, the composition as defined by claim 15 contains a water-soluble resin dissolved in water and which becomes water-insoluble by reaction with the insolubilizing agent.

#### The Rejection for Obviousness Over Ichimura et al in view of Narahara et al

##### (Paragraph 8)

While Ichimura et al do disclose energy-sensitive compositions in the form of aqueous emulsions which are developable with neutral water, those compositions are quite different from the compositions claimed here in that, as noted by the examiner at the top of page 7 of the office action, the compositions of Ichimura et al contain no acid-former and no sensitizer.

While Narahara et al teach photosensitive compositions containing an acid former, those compositions are solvent-based (column 10, lines 24-43) and require an alkaline solution for development (column 17, lines 47-63).

Because the compositions of Ichimura et al and Narahara et al differ both in nature (constituents, notably solvent-based versus water-based) and in the photochemistry upon exposure, it is considered that impermissible hindsight is the only

possible basis for combining the reference teachings. The examiner asserts that one skilled in the art would add the photo-acid generator and sensitizer of Narahara et al to the compositions of Ichimura et al in order to obtain the tack free properties and improved surface roughening efficiency taught by Narahara et al at column 9, lines 62-65. However, at column 9, lines 62-65 Narahara et al teach that the “inorganic compound particles”, e.g. calcium carbonate, not the acid-former and/or sensitizer, provide the tack-free property and surface roughness.

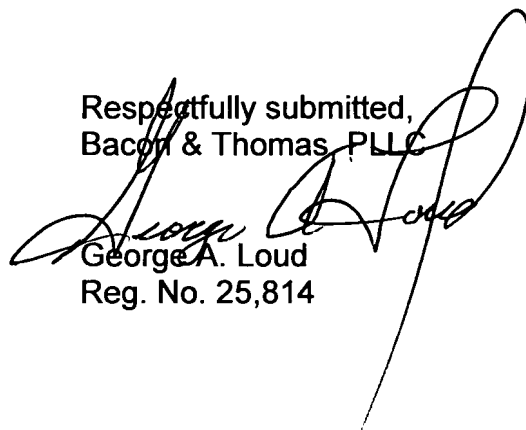
Further, neither Ichimura et al nor Narahara et al teach compositions containing an acid-former and/or sensitizer in particulate form. At column 12, lines 35-48 of Narahara et al, cited by the examiner, various particulates are mentioned but none is the acid-former or sensitizer.

#### The Rejection for Obviousness Over Kawamura et al (paragraph 9)

The rejection of claims 15, 25 and 30 over Kawamura et al for obviousness is respectfully traversed for essentially the same reasons mentioned above in connection with the rejection for anticipation in paragraph 6 of the office. In particular, (1) the compositions of Kawamura et al are solvent-based, not water-based, and (2) the photosensitive composition of Kawamura et al (it is photosensitive before exposure) does not contain a water-soluble resin.

In conclusion, it is respectfully requested that the examiner reconsider the rejections of record in light of the foregoing analysis.

Respectfully submitted,  
Bacon & Thomas PLLC

A large, stylized handwritten signature in black ink, likely belonging to George A. Loud, is written over the typed name and registration number.

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